

**TITLE OF GROUP OF CLASSES: SUPERVISING CIVIL ENGINEER****TITLE OF CLASSES IN GROUP****Class Code:**

(BRIDGE DESIGN)	02968501	A
(MATERIALS)	02968502	B
(CONSTRUCTION AND MAINTENANCE)	02968503	A
(ROAD DESIGN)	02968504	A
(TRANSPORTATION PLANNING)	02968505	A
(TRAFFIC DESIGN)	02968506	A
(WATER RESOURCES)	02968507	B
(ELECTRICAL)	02968508	B
(MECHANICAL)	02968509	B
(NATURAL RESOURCES)	02968510	B
(MECHANICAL ELECTRICAL STRUCTURAL RIDE SAFETY)	02968511	B
<b>Pay Grade:</b>		<b>35A</b>

**CLASS DEFINITION:**

**GENERAL STATEMENT OF DUTIES:** To perform administrative and advanced technical work in one of the specialized programs of the state as specified in the title: and to do related work as required.

**SUPERVISION RECEIVED:** Works under the general supervision of a superior with latitude for the exercise of technical and administrative judgement; work is reviewed for conformance to policies, instructions and accepted engineering techniques.

**SUPERVISION EXERCISED:** Plans, assigns, supervises and reviews the work of professional, sub-professional, labor and clerical employees.

**ILLUSTRATIVE EXAMPLES OF WORK PERFORMED:**

To perform administrative and advanced technical work in one of the following specialized programs of the state as specified in the title:

To assist the Chief Bridge Design Engineer to plan, assign, supervise and review the work performed in the Bridge Designing Unit; and to make preliminary analyses of proposed bridge projects and specific bridge problems and submit recommendations. To supervise the contract construction of a major bridge and related highway project; to coordinate and supervise field engineering activities for overlapping construction contracts; in the field: to interpret provisions of contracts, plans, specifications and designs; to assure that construction work schedules are maintained; to supervise the continued inspections of workmanship, materials and methods of construction; and to determine the amount of partial or final payments due contractors; or, to assist in exercising administrative and technical supervision over all state road construction activities; to review all requests for changes in plans and specifications and make decisions unless the proposed change would make a material difference in the contract in which case recommendations are made to superior; to assign resident engineers and inspectors to construction projects; to review reports and make field inspections of projects; and to recommend approval of intermediate and final road construction contract payments; or, to assist the Chief Highway Maintenance Engineer to exercise administrative and technical supervision over all activities of the state road maintenance program; to be responsible for inspecting all state-maintained highways and to determine maintenance required; and to be responsible for enforcing contract plans and specifications for

maintenance projects; or, to review architectural plans related to the electrical, or mechanical, or structural field of engineering to insure compliance and conformance to the building code.

To assist the Chief Materials Engineer in the sampling, testing and inspection at the site, the laboratory or at the originating source of all materials used in state construction; the preparation of methods and procedures for specific tests of materials used in state construction, the obtaining of certificates of compliance, where necessary, from materials manufacturers and the issuing of materials certificates stating acceptance and/or rejection of the various materials used in a project; the maintenance of records of all samples taken and all tests made; the implementation of a control testing program to assure the proper functioning of the regular testing and sampling program, the coordination of the program with the overall departmental programs and activities.

To assist the Chief Road Design Engineer to plan, assign, supervise and review the work performed in the Road Designing Unit; and to make preliminary analyses of proposed road projects and specific road design problems and submit recommendations; to be responsible for the supervision of the work of the secondary road program involving: obtaining the cooperation of municipal officials in the extension of the federal-aid secondary road system; the selection of suitable secondary road construction and maintenance projects; the determination of specifications for such projects; and the supervision of the construction and maintenance of such projects.

To perform responsible professional highway planning work; to conduct highway planning studies and to prepare charts, graphs, and reports relating to: intersectional turning movement studies, weaving and merging studies, peak hour and vehicle classification studies, truck weight studies, and speed and driver behavior statistical studies for the purpose of establishing trends; to compile road inventory data and other assigned or necessary studies relating to highway planning; to analyze and evaluate findings and make recommendations thereon to a superior; to recommend to the design officials minimum geometric design standards; and to prepare maps showing physical and cultural roadside items.

To assist the Chief Traffic Design Engineer in the development and maintenance of the traffic engineering control and regulation program involving: the making of charts, graphs and reports on such subjects as speed, no passing zones, school and loading zones, parking, traffic channelization, accidents, one-way streets, detours, and merging and through routes; to analyze highway planning studies relating to speed trends; to make specific speed studies relating to particular highways to establish or revise speed limits; to make recommendations concerning such subject to a superior for possible use by the State Traffic Commission; to revise geometric designs and recommend their acceptance thereon; to assist providing advice on the aspects of the manufacture and use of traffic control designs or road construction and maintenance projects.

To conduct hydrologic and hydrographic studies and surveys involving such activities as: compilation and evaluation of rainfall runoff yield, water consumption, and preparation of reports on watershed developments and service areas; to design and/or review construction plans for water works facilities and related water transmission and distribution systems.

To assist the Deputy Building Code Commissioner in planning, coordinating, supervising and reviewing the work performed for the Building Commission in regard to structural, mechanical and electrical engineering; to prepare analysis of proposed building projects; to oversee and provide professional guidance for the local code officials; to provide technical assistance in maintaining the State Building code current with national standards; to control the work designed by consultants hired for all state building projects.

To assist the State Building Commissioner in the inspection of amusement rides or devices to guard against personal injuries in the assembly, disassembly, and use of amusement devices, amusement attractions, and temporary structure at public fairs expositions, carnivals, festivals, celebrations, bazaars and permanent facilities.

To be responsible for the planning and directing of the engineering activities relating to the development and protection of the state's natural resources; to supervise contract construction at the state's parks, beaches, and other conservation area involving such construction as dams, sewers, small buildings, secondary roads, breakwater, piers, docks, fish ladders, historical restorations and erosion prevention; to be responsible for the preparation of cost estimates, specifications and plans; to coordinate and review plans and specifications prepared by subordinates and/or contractors; and to be responsible for enforcing contract plans and specifications for natural resource projects.

As required, to assist a superior in personnel and/or labor relations matters.

To do related work as required

## **REQUIRED QUALIFICATIONS FOR APPOINTMENT:**

**KNOWLEDGES, SKILLS AND CAPACITIES:** A thorough knowledge of the principles and practices of the area of specialization indicated in the title of the class of position and the ability to apply such principles and practices; the ability to read and interpret all types of appropriate engineering plans and specifications and to approve or reject proposed changes therein; the ability to plan and direct the activities of a large group of professional, technical, trades and supervisory assistants; the ability to establish effective working relations with associates, superiors, subordinates and the public; and related capacities and abilities.

## **EDUCATION AND EXPERIENCE:**

**Education:** Such as may have been gained through: graduation from a college of recognized standing with basic training in the field of professional engineering; and

**Experience:** Such as may have been gained through: employment at the level of a Principal Civil Engineer in a public agency or in private industry in an area of specialization indicated in the title of this class of position.

**Or,** any combination of education and experience that shall be substantially equivalent to the above education and experience.

**SPECIAL REQUIREMENT:** At the time of appointment must possess a certificate of a Registered Professional Engineer issued by the Rhode Island State Board of Registration for Professional Engineers and Land Surveyors and must maintain such certification as a condition of employment. Graduate of a school offering a program of study in amusement ride assembly and inspection for those engineers of the State Building Commission with said duties.

Class Revised: June 7, 1998

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